FIG. 1

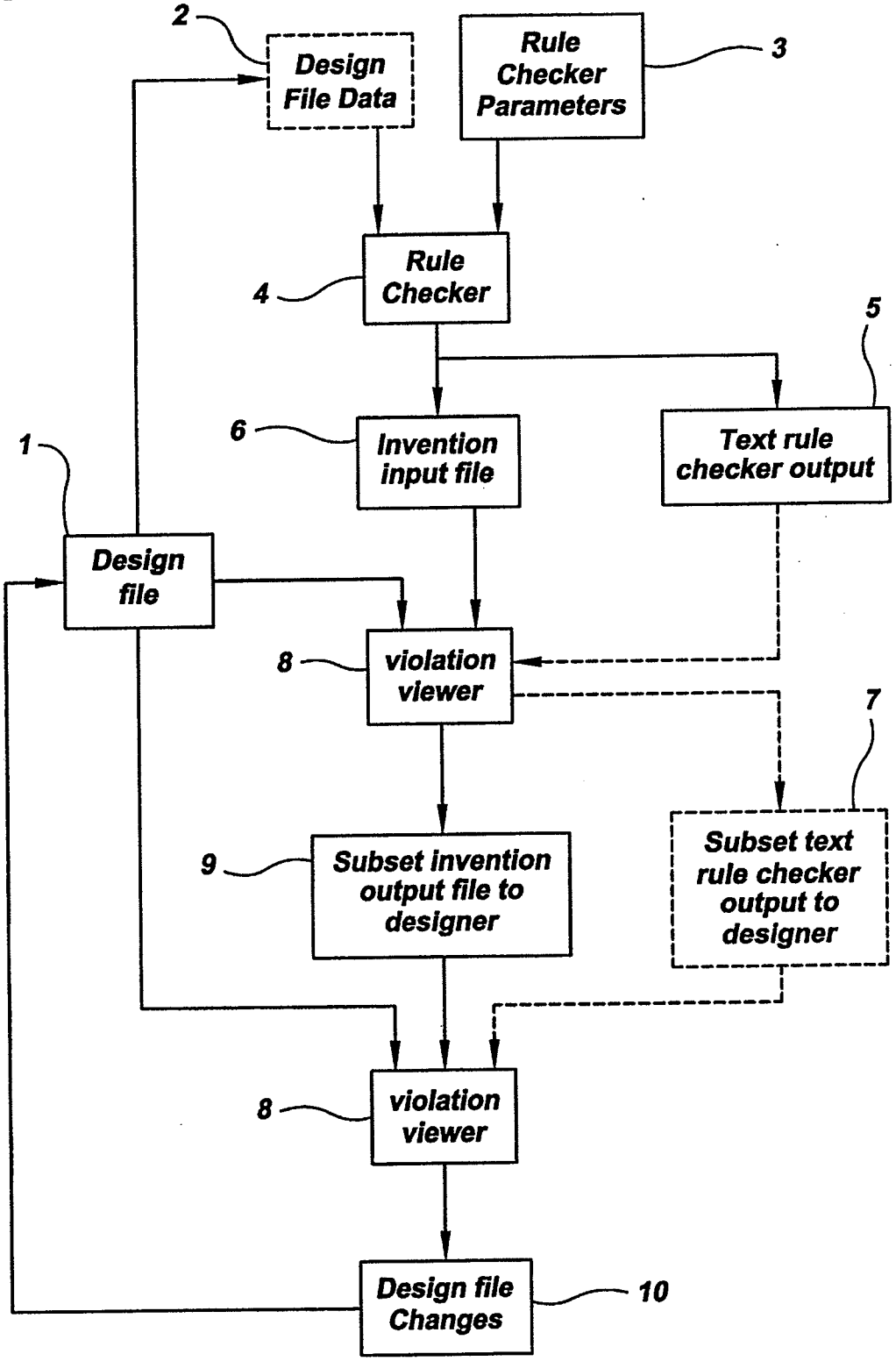

2
Design File Data
Rule Checker Parameters
3
Rule Checker
4
5
6
Invention input file
Text rule checker output
1
Design file
8
violation viewer
7
9
Subset invention output file to designer
Subset text rule checker output to designer
8
violation viewer
Design file Changes
10

FIG.2

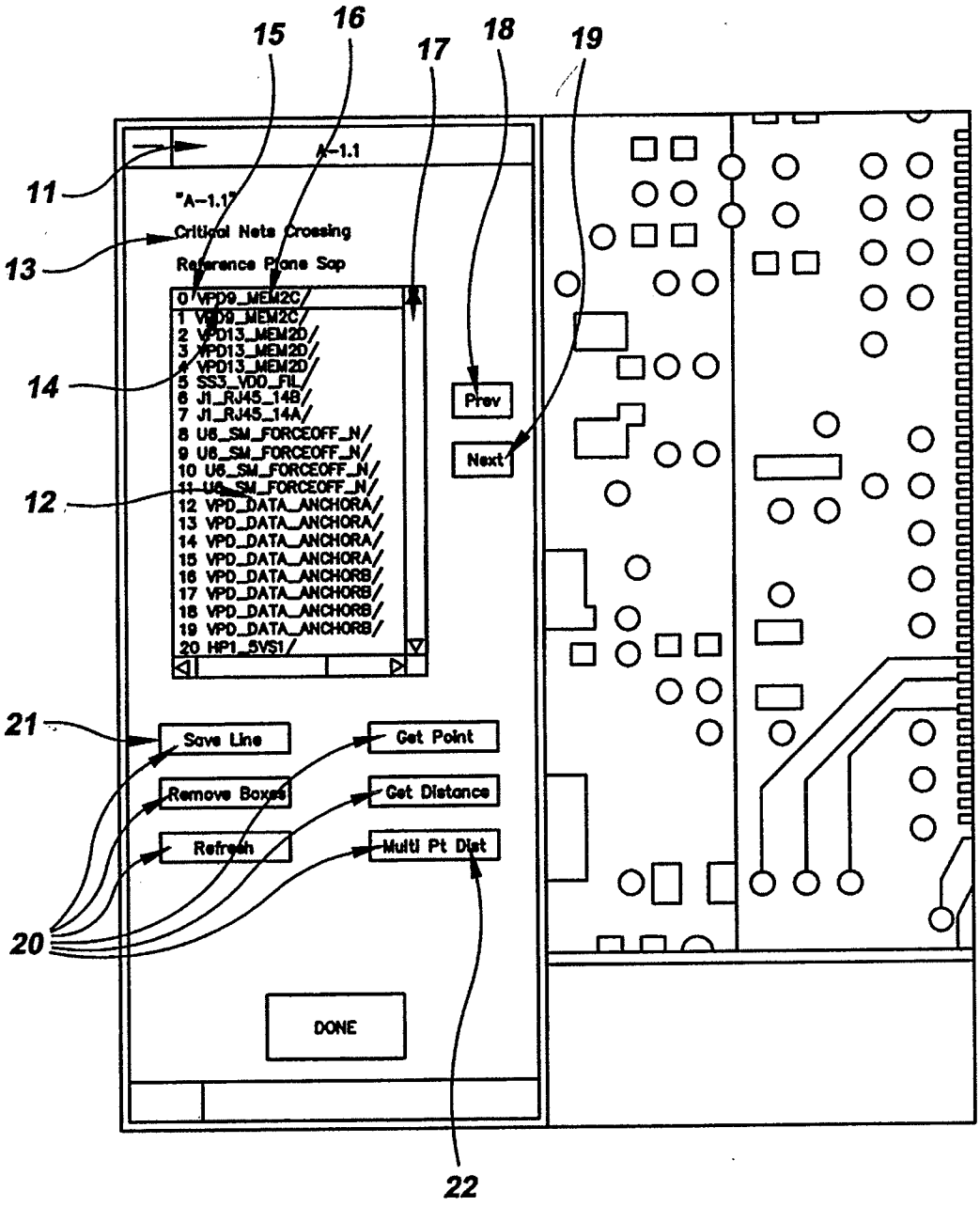

15
16
17
18
19
11
13
14
12
21
20
22
A-1.1
"A-1.1"
Critical Nets Crossing
Reference Plane Sop
0 VPD9_MEM2C/
1 VPD9_MEM2C/
2 VPD13_MEM2D/
3 VPD13_MEM2D/
4 VPD13_MEM2D/
5 SS3_VDD_FIL/
6 J1_RJ45_14B/
7 J1_RJ45_14A/
8 U6_SM_FORCEOFF_N/
9 U6_SM_FORCEOFF_N/
10 U6_SM_FORCEOFF_N/
11 U6_SM_FORCEOFF_N/
12 VPD_DATA_ANCHORA/
13 VPD_DATA_ANCHORA/
14 VPD_DATA_ANCHORA/
15 VPD_DATA_ANCHORA/
16 VPD_DATA_ANCHORB/
17 VPD_DATA_ANCHORB/
18 VPD_DATA_ANCHORB/
19 VPD_DATA_ANCHORB/
20 HP1_5VS1/
Prev
Next
Save Line
Remove Boxes
Refresh
Get Point
Get Distance
Multi Pt Dist
DONE

FIG.3

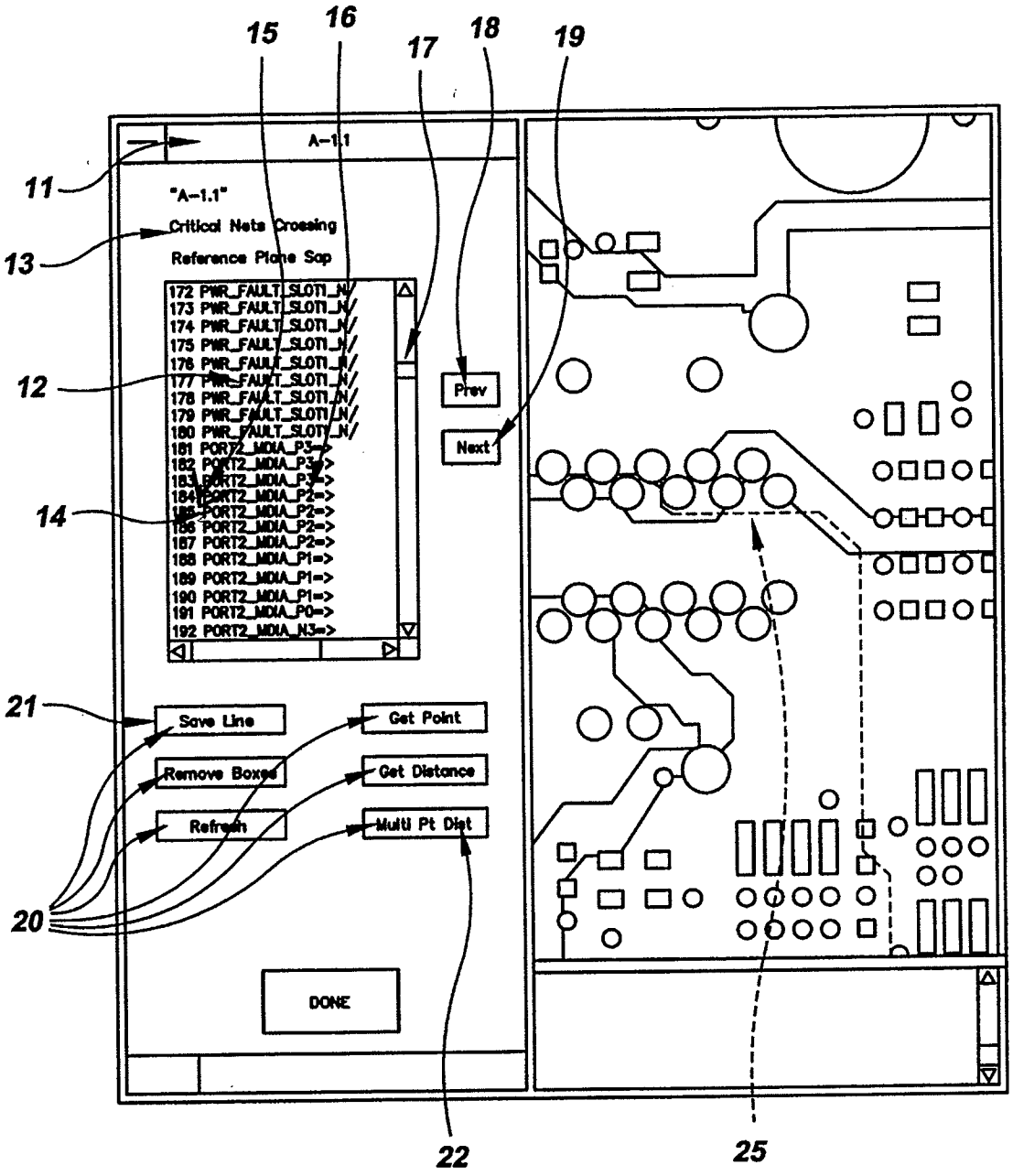

15
16
17
18
19
A-1.1
11
"A-1.1"
Critical Nets Crossing
13
Reference Plane Sap
172 PWR_FAULT_SLOT1_N/
173 PWR_FAULT_SLOT1_N/
174 PWR_FAULT_SLOT1_N/
175 PWR_FAULT_SLOT1_N/
176 PWR_FAULT_SLOT1_N/
12
177 PWR_FAULT_SLOT1_N/
178 PWR_FAULT_SLOT1_N/
179 PWR_FAULT_SLOT1_N/
180 PWR_FAULT_SLOT1_N/
181 PORT2_MDIA_P3=>
182 PORT2_MDIA_P3=>
183 PORT2_MDIA_P3=>
184 PORT2_MDIA_P2=>
14
185 PORT2_MDIA_P2=>
186 PORT2_MDIA_P2=>
187 PORT2_MDIA_P2=>
188 PORT2_MDIA_P1=>
189 PORT2_MDIA_P1=>
190 PORT2_MDIA_P1=>
191 PORT2_MDIA_P0=>
192 PORT2_MDIA_N3=>
Prev
Next
21
Save Line
Get Point
Remove Boxes
Get Distance
Refresh
Multi Pt Dist
20
DONE
22
25

FIG.4

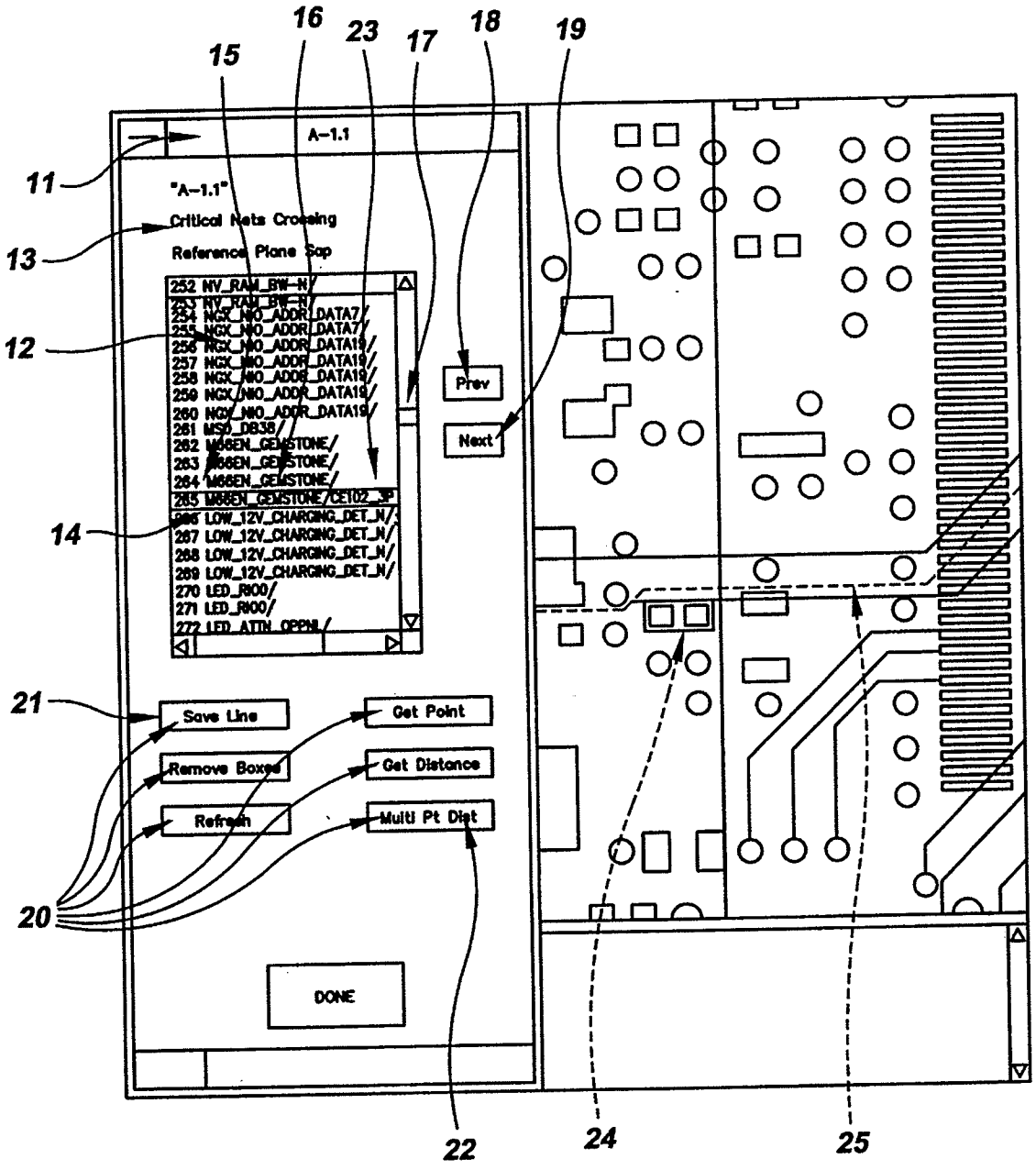

15
16
23
17
18
19
11
13
12
14
21
20
22
24
25
A-1.1
"A-1.1"
Critical Nets Crossing
Reference Plane Gap
252 NV_RAM_BW-N/
253 NV_RAM_BW-N/
254 NGX_NIO_ADDR_DATA7/
255 NGX_NIO_ADDR_DATA7/
256 NGX_NIO_ADDR_DATA19/
257 NGX_NIO_ADDR_DATA19/
258 NGX_NIO_ADDR_DATA19/
259 NGX_NIO_ADDR_DATA19/
260 NGX_NIO_ADDR_DATA19/
261 MS0_DB38/
262 M66EN_GEMSTONE/
263 M66EN_GEMSTONE/
264 M66EN_GEMSTONE/
265 M66EN_GEMSTONE/CE102_3P
266 LOW_12V_CHARGING_DET_N/
267 LOW_12V_CHARGING_DET_N/
268 LOW_12V_CHARGING_DET_N/
269 LOW_12V_CHARGING_DET_N/
270 LED_R00/
271 LED_R00/
272 LED_ATTN_OPPN/
Prev
Next
Save Line
Remove Boxes
Refresh
Get Point
Get Distance
Multi Pt Dist
DONE

FIG.5

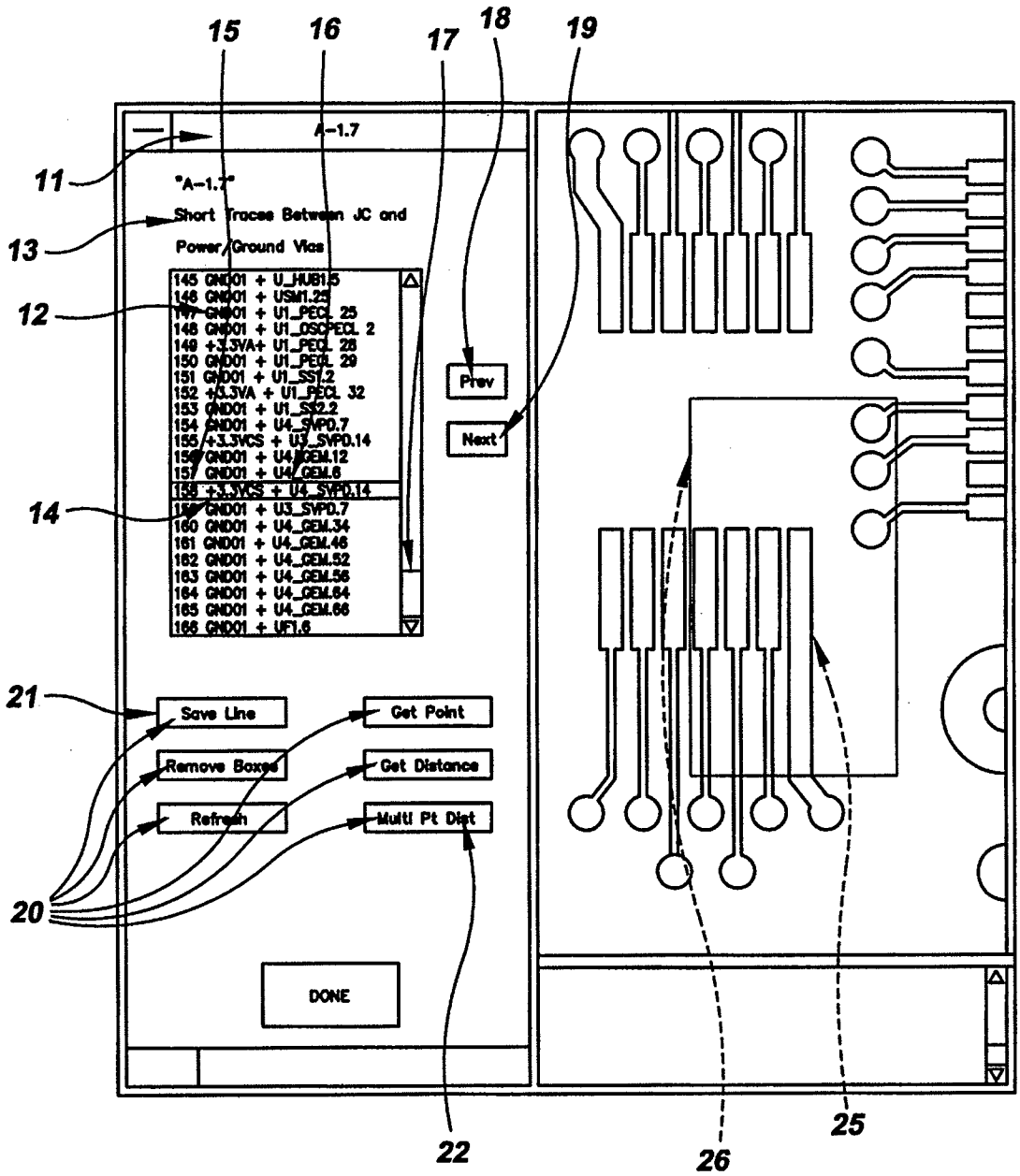

15
16
17
18
19
11
13
12
14
21
20
22
25
26
A-1.7
"A-1.7"
Short Traces Between JC and
Power/Ground Vias
145 GND01 + U_HUB1.5
146 GND01 + USM1.25
147 GND01 + U1_PECL 25
148 GND01 + U1_OSCPECL 2
149 +3.3VA+ U1_PECL 28
150 GND01 + U1_PECL 29
151 GND01 + U1_SS1.2
152 +3.3VA + U1_PECL 32
153 GND01 + U1_SS2.2
154 GND01 + U4_SVPD.7
155 +3.3VCS + U3_SVPD.14
156 GND01 + U4_GEM.12
157 GND01 + U4_GEM.6
158 +3.3VCS + U4_SVPD.14
159 GND01 + U3_SVPD.7
160 GND01 + U4_GEM.34
161 GND01 + U4_GEM.46
162 GND01 + U4_GEM.52
163 GND01 + U4_GEM.56
164 GND01 + U4_GEM.64
165 GND01 + U4_GEM.66
166 GND01 + UF1.6
Prev
Next
Save Line
Remove Boxes
Refresh
Get Point
Get Distance
Multi Pt Dist
DONE

FIG.6

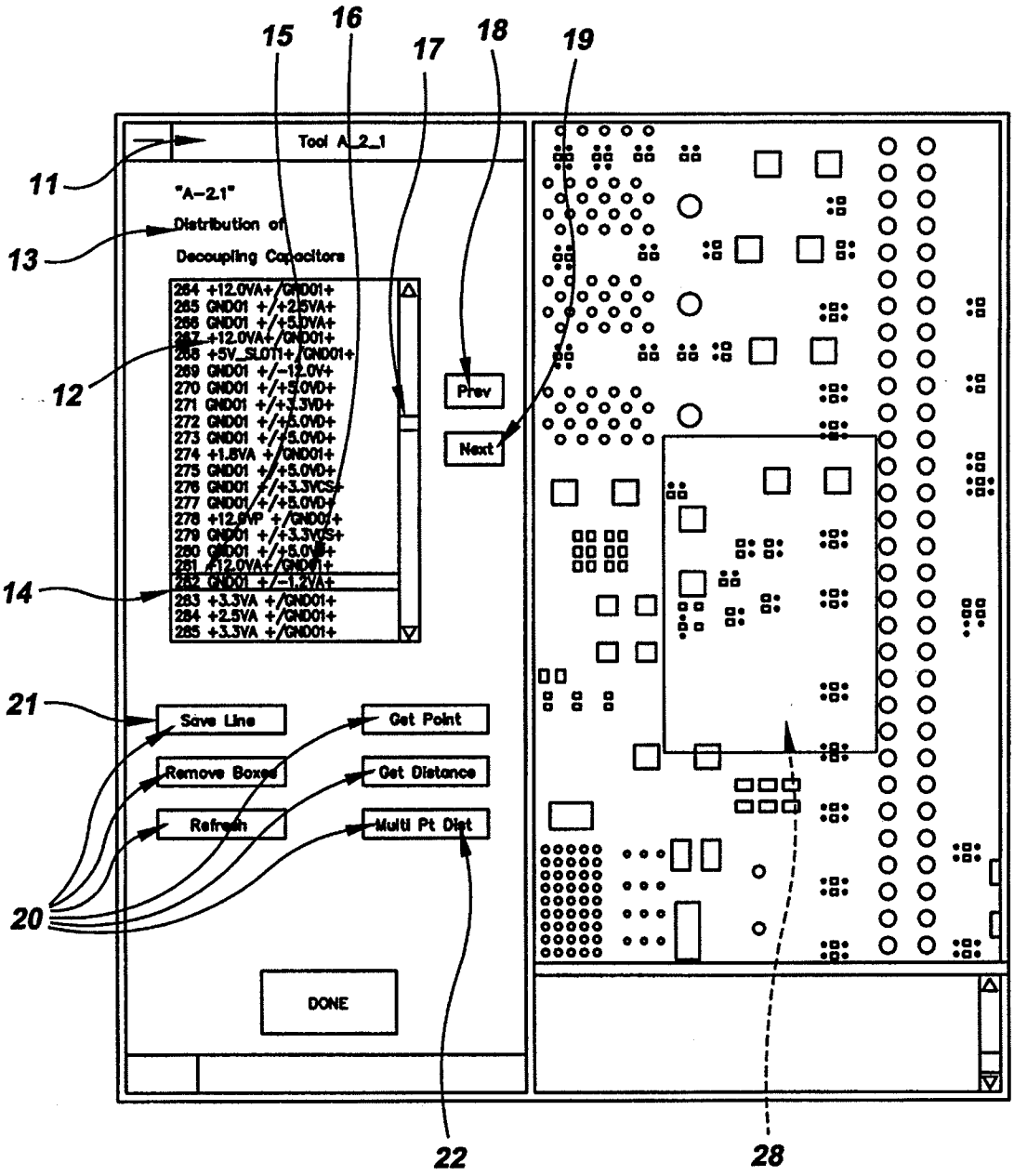

15
16
17
18
19
11
13
12
14
21
20
22
28
Tool A_2_1
"A-2.1"
Distribution of
Decoupling Capacitors
264 +12.0VA+/GND01+
265 GND01 +/+2.5VA+
266 GND01 +/+5.0VA+
267 +12.0VA+/GND01+
268 +5V_SLOT1+/GND01+
269 GND01 +/-12.0V+
270 GND01 +/+5.0VD+
271 GND01 +/+3.3VD+
272 GND01 +/+5.0VD+
273 GND01 +/+5.0VD+
274 +1.8VA +/GND01+
275 GND01 +/+5.0VD+
276 GND01 +/+3.3VCS+
277 GND01 +/+5.0VD+
278 +12.0VP +/GND01+
279 GND01 +/+3.3VCS+
280 GND01 +/+5.0VD+
281 +12.0VA+/GND01+
282 GND01 +/-1.2VA+
283 +3.3VA +/GND01+
284 +2.5VA +/GND01+
285 +3.3VA +/GND01+
Prev
Next
Save Line
Remove Boxes
Refresh
Get Point
Get Distance
Multi Pt Dist
DONE

FIG.7

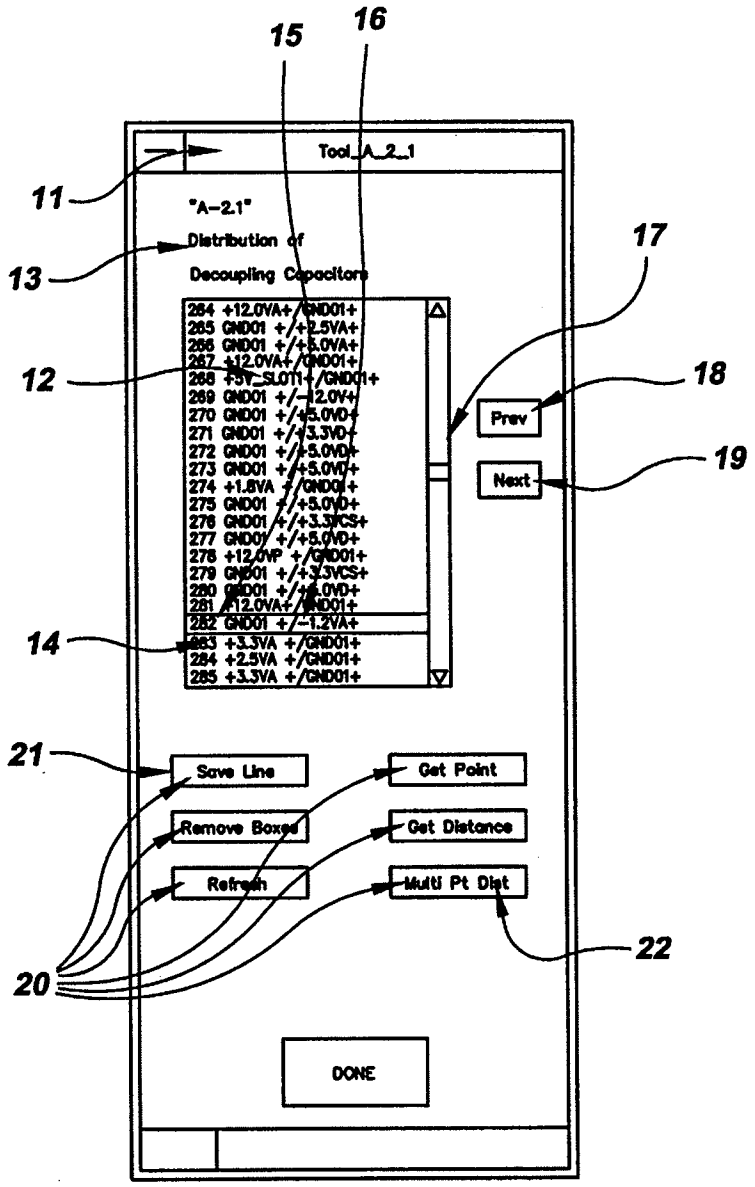

15
16
11
Tool_A_2_1
"A-2.1"
13
Distribution of
Decoupling Capacitors
17
12
284 +12.0VA+/GND01+
285 GND01 +/+2.5VA+
286 GND01 +/+5.0VA+
287 +12.0VA+/GND01+
288 +5V_SLOT1+/GND01+
289 GND01 +/-12.0V+
270 GND01 +/+5.0VD+
271 GND01 +/+3.3VD+
272 GND01 +/+5.0VD+
273 GND01 +/+5.0VD+
274 +1.8VA +/GND01+
275 GND01 +/+5.0VD+
276 GND01 +/+3.3VCS+
277 GND01 +/+5.0VD+
278 +12.0VP +/GND01+
279 GND01 +/+3.3VCS+
280 GND01 +/+5.0VD+
281 +12.0VA+/GND01+
282 GND01 +/-1.2VA+
283 +3.3VA +/GND01+
284 +2.5VA +/GND01+
285 +3.3VA +/GND01+
18
Prev
19
Next
14
21
Save Line
Get Point
Remove Boxes
Get Distance
Refresh
Multi Pt Dist
22
20
DONE

FIG.8

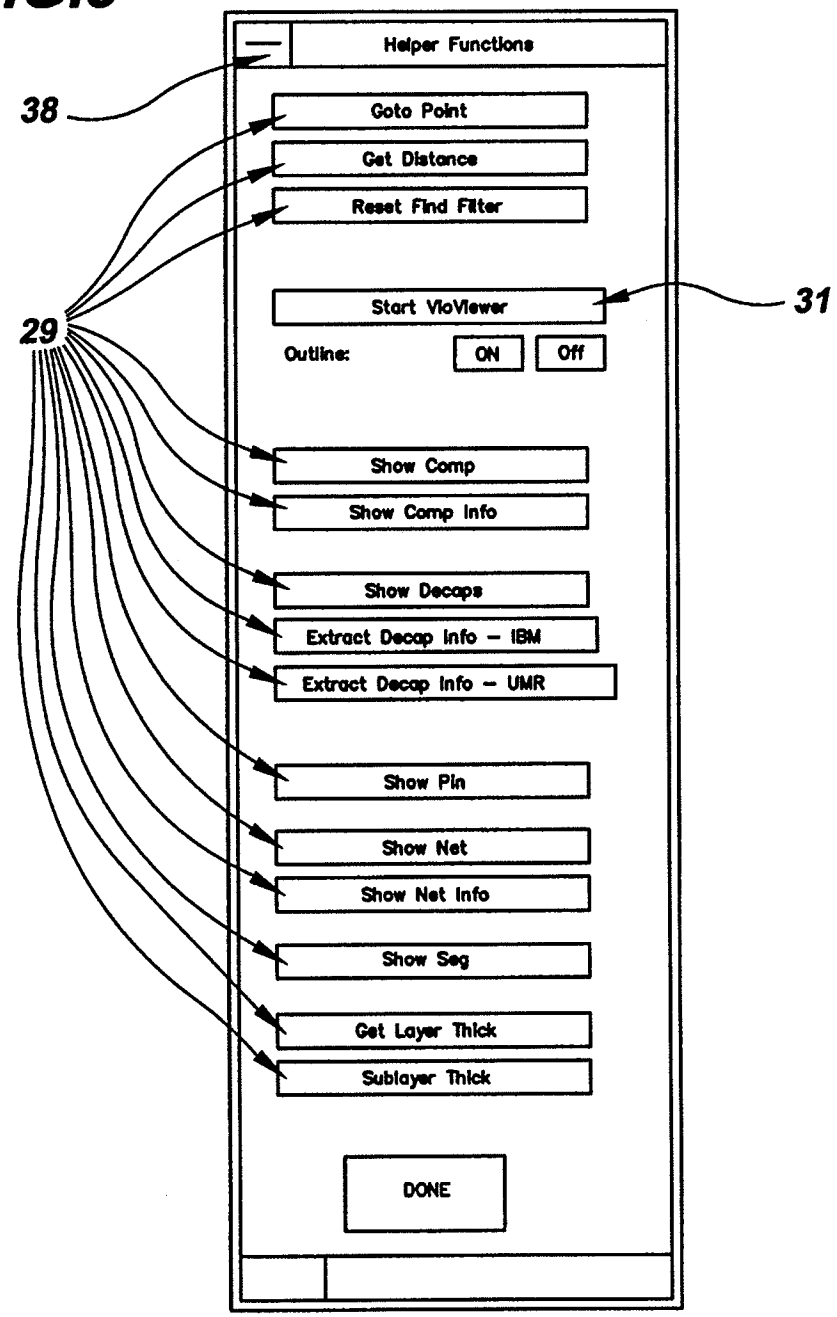

Helper Functions
38
Goto Point
Get Distance
Reset Find Filter
Start VioViewer
31
29
Outline:
ON
Off
Show Comp
Show Comp Info
Show Decaps
Extract Decap Info – IBM
Extract Decap Info – UMR
Show Pin
Show Net
Show Net Info
Show Seg
Get Layer Thick
Sublayer Thick
DONE

FIG.9

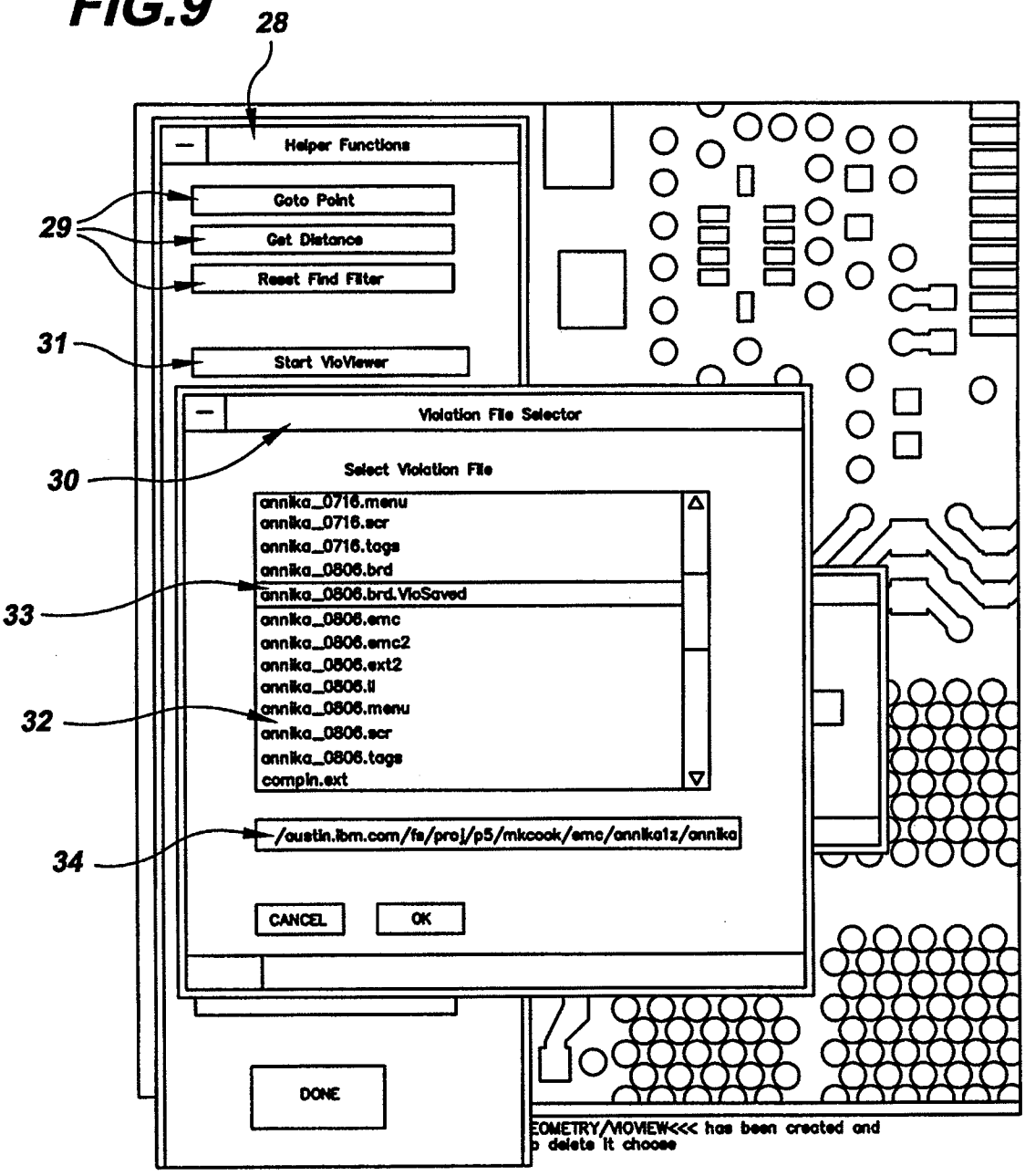

28
Helper Functions
29
Goto Point
Get Distance
Reset Find Filter
31
Start VioViewer
Violation File Selector
30
Select Violation File
annika_0716.menu
annika_0716.scr
annika_0716.tags
annika_0806.brd
33
annika_0806.brd.VioSaved
annika_0806.emc
annika_0806.emc2
annika_0806.ext2
annika_0806.il
32
annika_0806.menu
annika_0806.scr
annika_0806.tags
compin.ext
34
/austin.ibm.com/fs/proj/p5/mkcook/emc/annika1z/annika
CANCEL
OK
DONE
EOMETRY/VIOVIEW<<< has been created and
delete it choose

FIG. 10

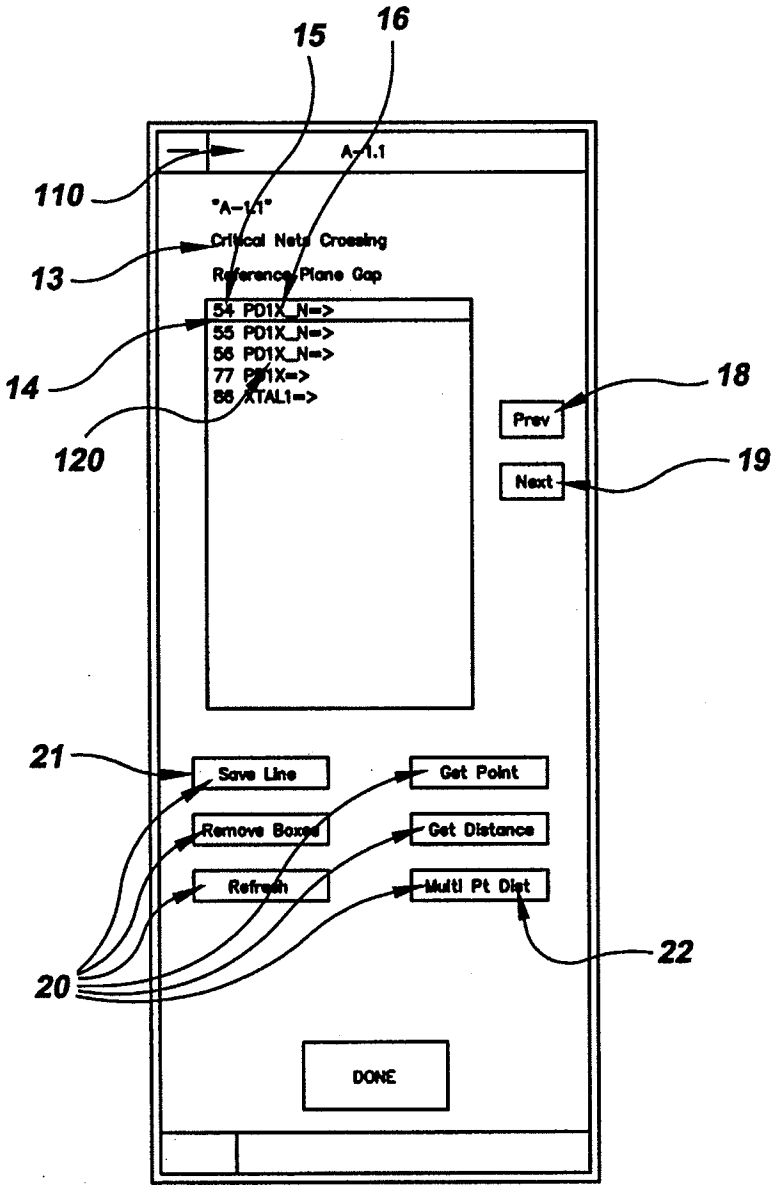

15
16
110
A-1.1
"A-1.1"
Critical Nets Crossing
13
Reference Plane Gap
54 PD1X_N=>
55 PD1X_N=>
56 PD1X_N=>
77 PD1X=>
14
88 XTAL1=>
120
18
Prev
19
Next
21
Save Line
Get Point
Remove Boxes
Get Distance
Refresh
Multi Pt Dist
22
20
DONE

FIG.11

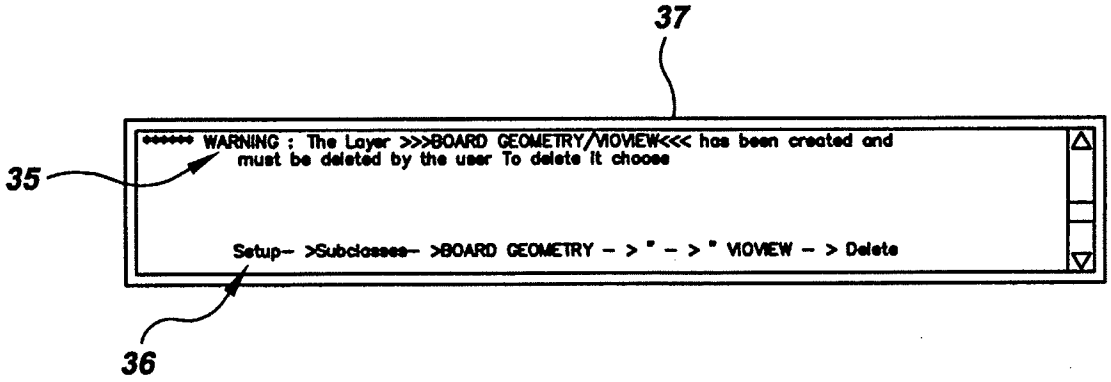

37
****** WARNING : The Layer >>>BOARD GEOMETRY/VIOVIEW<<< has been created and
must be deleted by the user To delete it choose
35
Setup-- >Subclasses-- >BOARD GEOMETRY -- > " -- > " VIOVIEW -- > Delete
36

FIG.12

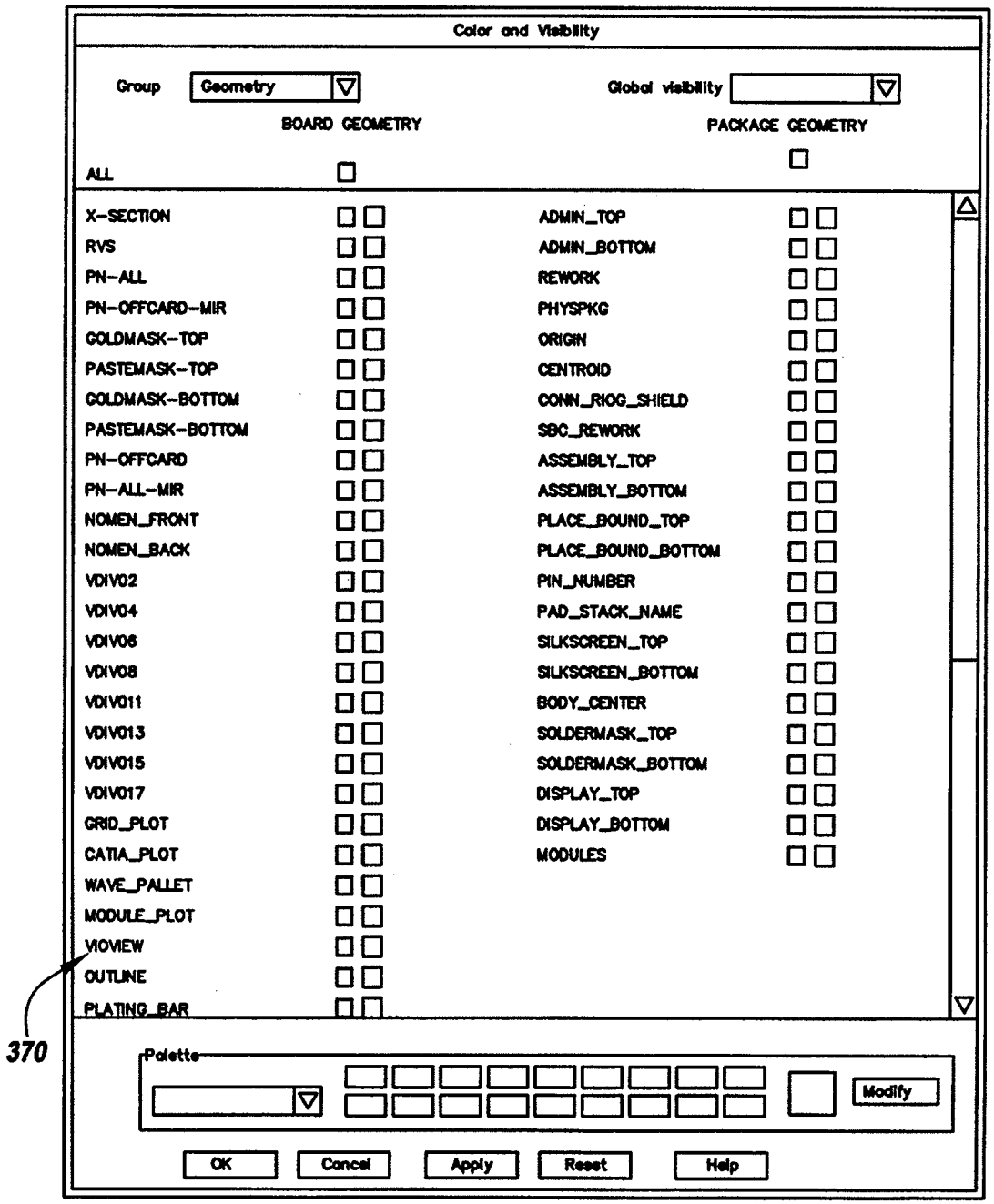

Color and Visibility
Group
Geometry
Global visibility
BOARD GEOMETRY
PACKAGE GEOMETRY
ALL
X-SECTION
RVS
PN-ALL
PN-OFFCARD-MIR
GOLDMASK-TOP
PASTEMASK-TOP
GOLDMASK-BOTTOM
PASTEMASK-BOTTOM
PN-OFFCARD
PN-ALL-MIR
NOMEN_FRONT
NOMEN_BACK
VDIV02
VDIV04
VDIV06
VDIV08
VDIV011
VDIV013
VDIV015
VDIV017
GRID_PLOT
CATIA_PLOT
WAVE_PALLET
MODULE_PLOT
VIOVIEW
OUTLINE
PLATING_BAR
ADMIN_TOP
ADMIN_BOTTOM
REWORK
PHYSPKG
ORIGIN
CENTROID
CONN_RIOG_SHIELD
SBC_REWORK
ASSEMBLY_TOP
ASSEMBLY_BOTTOM
PLACE_BOUND_TOP
PLACE_BOUND_BOTTOM
PIN_NUMBER
PAD_STACK_NAME
SILKSCREEN_TOP
SILKSCREEN_BOTTOM
BODY_CENTER
SOLDERMASK_TOP
SOLDERMASK_BOTTOM
DISPLAY_TOP
DISPLAY_BOTTOM
MODULES
Palette
Modify
OK
Cancel
Apply
Reset
Help
370

FIG.13

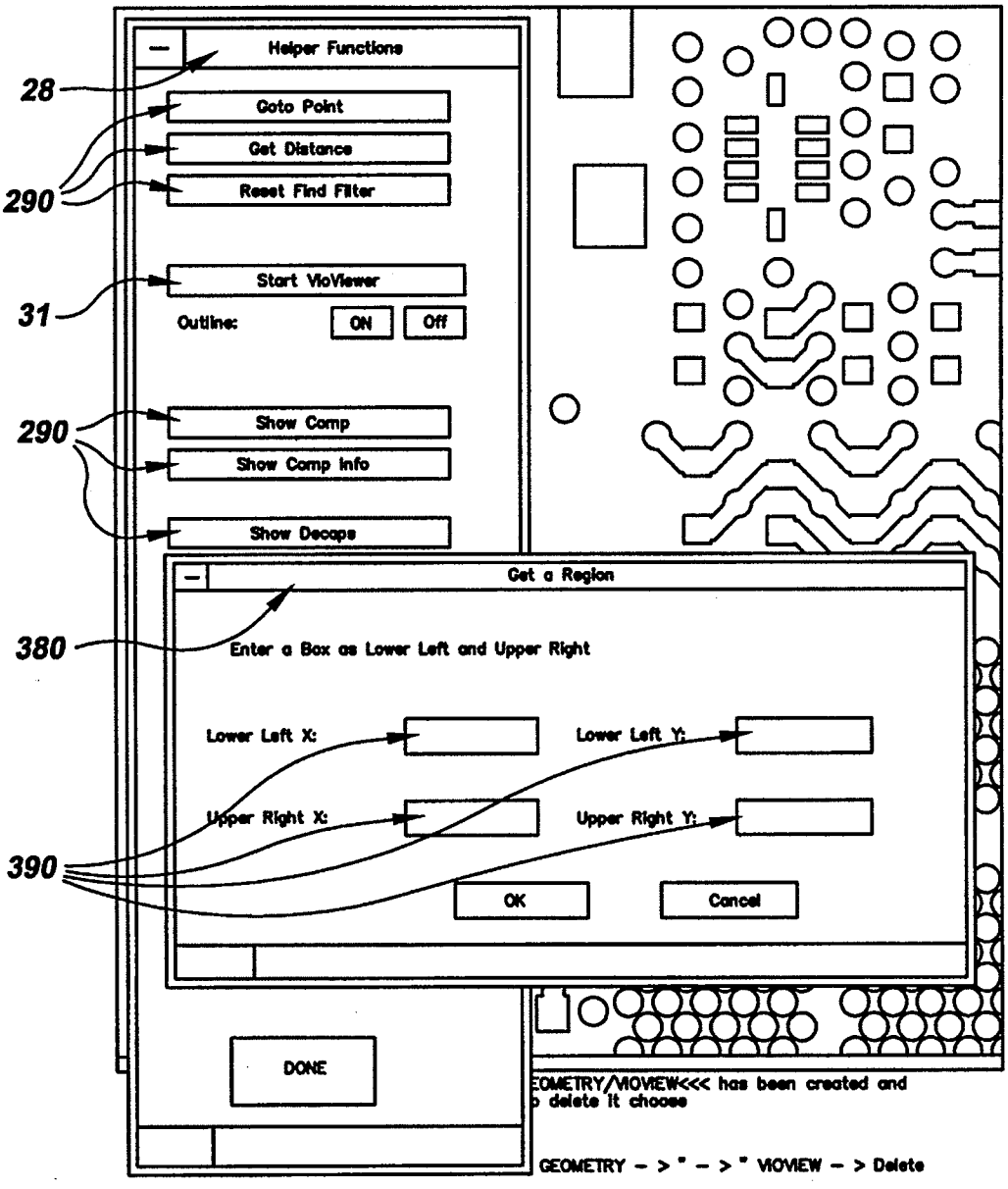
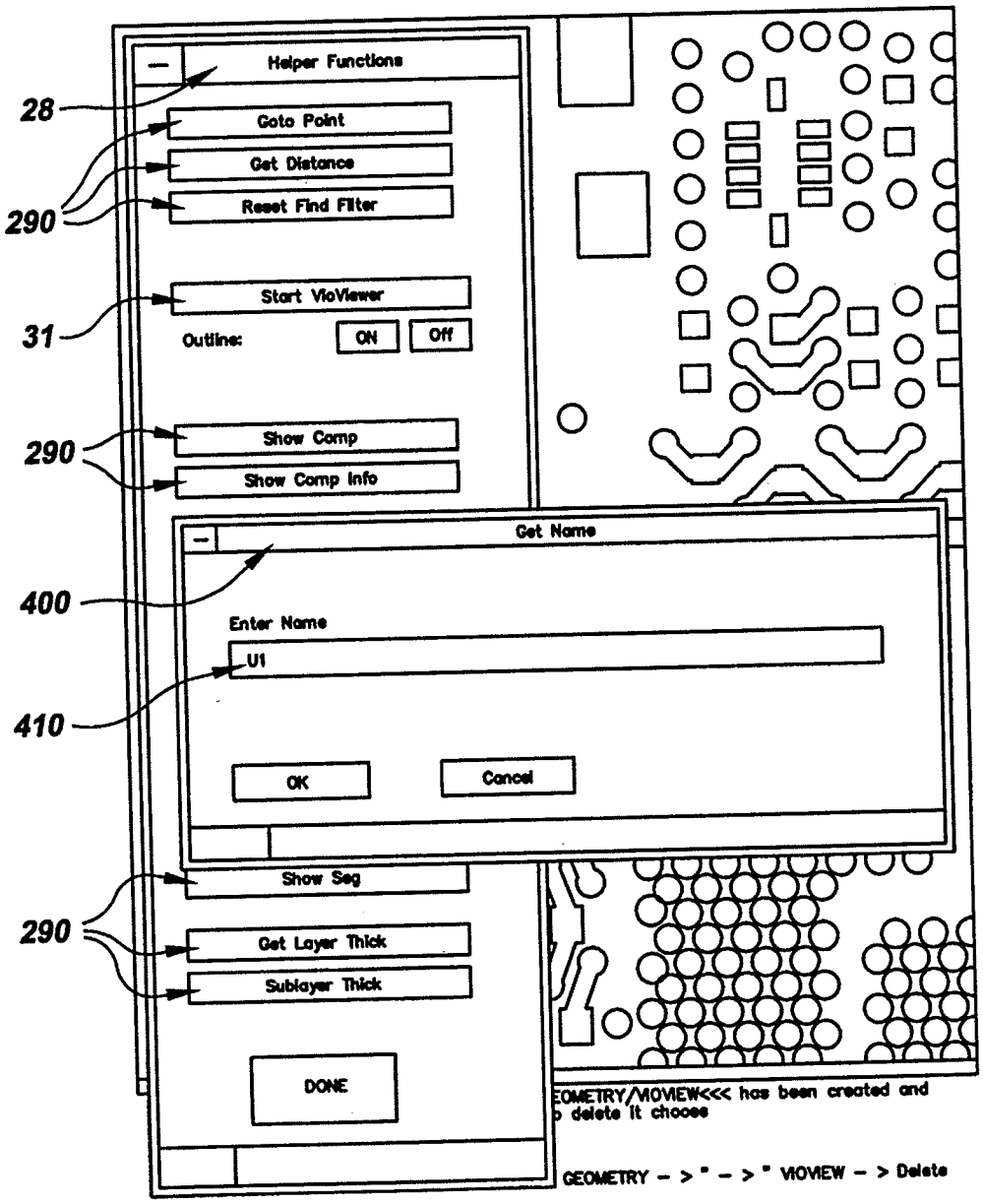

28
290
31
290
380
390
Helper Functions
Goto Point
Get Distance
Reset Find Filter
Start VioViewer
Outline:
ON
Off
Show Comp
Show Comp Info
Show Decaps
Get a Region
Enter a Box as Lower Left and Upper Right
Lower Left X:
Lower Left Y:
Upper Right X:
Upper Right Y:
OK
Cancel
DONE
EOMETRY/VIOVIEW<<< has been created and
delete it choose
GEOMETRY - > " - > " VIOVIEW - > Delete

FIG.14


28
290
31
290
400
410
290
Helper Functions
Goto Point
Get Distance
Reset Find Filter
Start VioViewer
Outline:
ON
Off
Show Comp
Show Comp Info
Get Name
Enter Name
U1
OK
Cancel
Show Seg
Get Layer Thick
Sublayer Thick
DONE
EOMETRY/VIOVIEW<<< has been created and
delete it choose
GEOMETRY - > * - > * VIOVIEW - > Delete